

Application No.09/844,005

Attorney Docket: 2050-07

Claim Amendment under 37 C.F.R. §1.121

Claim 1. (currently amended) In a satellite broadcasting receiver for receiving scrambled or unscrambled digital satellite broadcasting signals, demultiplexing the signals, decoding the signals and outputting audio and video signals, a multichannel signal receiver comprising:

a descrambler including a plurality of descrambling units for descrambling the scrambled digital satellite broadcasting signals;

a signal receiver for receiving at least one digital satellite broadcasting signal via at least one antenna, and outputting the digital satellite broadcasting signal;

a signal output unit for demultiplexing the digital satellite broadcasting signal, demodulating the signal, and outputting audio and video signals;

a common interface controller for checking whether the digital satellite broadcasting signal provided by the signal receiver is a paid signal or a free signal, outputting the digital satellite broadcasting signal to the signal output unit when the digital satellite broadcasting signal is a free signal, and outputting the digital satellite broadcasting signal to the descrambler and outputting a descrambled digital satellite broadcasting signal to the signal output unit when the digital satellite broadcasting signal is a paid signal, the common interface controller outputs a time lapse message when a number of the paid digital satellite broadcasting signals is greater than the number of descrambling units; and

a host central processing unit (CPU) for controlling the signal receiver, the common interface controller and the signal output unit.

Claim 2. (currently amended) The receiver of claim 1, wherein at least some of the satellite broadcasting paid signals are signals is scrambled by one of Viaccess, Conax, Cryptwork, Irdeto and Nagravision methods.

Claim 3. (original) The receiver of claim 1, wherein the descrambling process is performed by a common interface module.

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Claim 4. (original) The receiver of claim 1, wherein the common interface controller comprises:

a transport stream interface for receiving at least one digital satellite broadcasting signal from the signal receiver, checking whether the digital satellite broadcasting signal is a paid broadcasting signal, supplying the checked paid broadcasting signal to the descrambler, controlling the descrambling process, and outputting the descrambled broadcasting signal provided by the descrambler to the signal output unit;

a host interface for controlling at least one common interface module of the descrambler according to the control of the host CPU; and

an inter integrated circuit (I²C) interface for controlling the host interface and the transport stream interface according to the control of the host CPU.

Claim 5. (canceled)

Claim 6. (currently amended) In a satellite broadcasting signal receiving method for receiving scrambled or unscrambled digital satellite broadcasting signals, demultiplexing the signals, decoding the signals and outputting audio and video signals, a method for controlling a multichannel signal receiver comprising:

(a) selecting at least one receiving channel of the digital satellite broadcasting signals according to a driving of the receiver;

(b) checking a receipt state of a broadcasting signal of the selected broadcasting signals in (a), and outputting a warning message that no signal is received when the broadcasting signal is not received, and checking whether the broadcasting signal is a paid signal when the broadcasting signal is received;

(c) demultiplexing the corresponding broadcasting signal, decoding the signal and outputting the signal when the received broadcasting signal is that of a free broadcast in (b); and

(d) descrambling the corresponding broadcasting signal, demultiplexing the descrambled broadcasting signal and decoding the same when the received broadcasting signal is that of a paid broadcast in (b), wherein a time-lapse message is displayed when at least two descrambling units are provided and the number of the scrambled broadcasting signals is greater than the number of descrambling units.

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Claim 7. (original) The method of claim 6, wherein (d) comprises:

(d-1) checking whether a descrambler for descrambling the scrambled broadcasting signal is provided;

(d-2) descrambling the broadcasting signal, demultiplexing the signal, demodulating the signal and outputting the signal when the descrambler is provided in (d-1); and

(d-3) displaying a message that no smart card for descrambling the broadcasting signal is provided when the descrambler is not provided in (d-1).

Claim 8. (canceled)

Claim 9. (original) The method of claim 6, wherein the descrambled broadcasting signals are demultiplexed, decoded and output via respective different paths when at least two descrambled broadcasting signals are provided.